

# Comparisons of Job Characteristics

**Focus Occupation:** [Natural Sciences Managers \(11-9121\)](#)

**Associated Occupation:** [Environmental Scientists and Specialists, Including Health \(19-2041\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 82

**Focus Occupation:** Natural Sciences Managers (11-9121)

**Associated Occupation:** Environmental Scientists and Specialists, Including Health (19-2041)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mathematics	9.2	15.5	12.6	<	Expanded education and/or training may be required
Chemistry	4.8	14.9	13.5	<	Expanded education and/or training may be required
Biology	3.7	14.8	11.8	<	Expanded education and/or training may be required
Law and Government	5.9	13.5	12.1	<	Expanded education and/or training may be required
Geography	3.9	12.7	5.9	<<	Extensive education and/or training may be required
Engineering and Technology	5.7	12.1	11.4	0	Current knowledge level may be sufficient
Physics	4.3	10.5	7.1	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 84

**Focus Occupation:** Natural Sciences Managers (11-9121)

**Associated Occupation:** Environmental Scientists and Specialists, Including Health (19-2041)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Reading Comprehension	10.7	16.1	15.6	0	Current skill level may be sufficient
Science	4.5	15.7	15.7	0	Current skill level may be sufficient
Writing	9.2	14.4	13.6	0	Current skill level may be sufficient
Complex Problem Solving	9.1	13.4	11.6	<	A higher skill level may be required

Judgment and Decision Making	9.4	13.1	12.2	0	Current skill level may be sufficient
Active Learning	8.7	13.0	12.5	0	Current skill level may be sufficient
Mathematics	6.2	12.2	10.6	<	A higher skill level may be required
Coordination	9.1	11.8	12.3	0	Current skill level may be sufficient
Learning Strategies	7.2	11.7	9.3	<	A higher skill level may be required
Systems Analysis	6.5	10.6	9.9	0	Current skill level may be sufficient
Operations Analysis	5.0	9.3	13.6	>>	Skill level is likely more than sufficient
Programming	2.2	6.3	3.9	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Abilities

Similarity of Focus Occupation to Associated Occupation: 94

Focus Occupation: Natural Sciences Managers (11-9121)

Associated Occupation: Environmental Scientists and Specialists, Including Health (19-2041)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Inductive Reasoning	10.2	16.5	14.8	<	Some improvement in abilities may be required
Written Comprehension	11.0	16.3	16.0	0	Current ability level may be sufficient
Problem Sensitivity	11.1	15.8	12.5	<<	Extensive improvement in abilities may be required
Deductive Reasoning	10.6	15.1	15.5	0	Current ability level may be sufficient
Written Expression	9.8	14.4	14.4	0	Current ability level may be sufficient
Category Flexibility	9.0	13.0	11.6	<	Some improvement in abilities may be required
Information Ordering	9.9	12.9	11.9	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	12.2	9.8	<	Some improvement in abilities may be required
Number Facility	6.3	11.9	10.0	<	Some improvement in abilities may be required
Flexibility of Closure	7.8	11.6	6.9	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 64

Focus Occupation: Natural Sciences Managers (11-9121)

Associated Occupation: Environmental Scientists and Specialists, Including Health (19-2041)

Work Activities	Exclusivity of Activity
Adhere to safety procedures	12

Advise clients or customers	19
Analyze scientific research data or investigative findings	27
Communicate technical information	4
Confer with scientists	54
Develop plans for programs or projects	31
Develop policies, procedures, methods, or standards	21
Explain complex mathematical information	30
Make presentations	13
Prepare reports	8
Resolve engineering or science problems	46
Use library or online Internet research techniques	21
Use physical science research techniques	68
Use scientific research methodology	21

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 84

**Focus Occupation: Natural Sciences Managers (11-9121)**

**Associated Occupation: Environmental Scientists and Specialists, Including Health (19-2041)**

Tools and Technologies	Exclusivity
Audio and visual equipment	4
Business function specific software	1
Cameras	2
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Duplicating machines	6
Electrochemical measuring instruments and accessories	9
Gas analyzers and monitors	10
Hydrological instruments	31
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Liquid and solid and elemental analyzers	19
Meteorological instruments	16
Network applications software	1
Personal communication devices	2
Sampling equipment	12
Soil measuring equipment	20
Water treatment and supply equipment	21

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.